

## **RAW SEQUENCE LISTING**

**The Biotechnology Systems Branch of the Scientific and Technical  
Information Center (STIC) no errors detected.**

Application Serial Number: 10/516, 490 B  
Source: IFWP  
Date Processed by STIC: 07/06/2006

# ***ENTERED***



IFWP

## RAW SEQUENCE LISTING

DATE: 07/06/2006

PATENT APPLICATION: US/10/516,490B

TIME: 13:40:35

Input Set : A:\X15642.ST25.txt

Output Set: N:\CRF4\07062006\J516490B.raw

3 <110> APPLICANT: Eli Lilly and Company  
 5 <120> TITLE OF INVENTION: MODIFIED GLUCAGON-LIKE PEPTIDE-1 ANALOGS  
 7 <130> FILE REFERENCE: X-15642  
 9 <140> CURRENT APPLICATION NUMBER: US 10/516,490B  
 C--> 10 <141> **CURRENT FILING DATE: 2004-12-01**  
 12 <160> NUMBER OF SEQ ID NOS: 24  
 14 <170> SOFTWARE: PatentIn version 3.3  
 16 <210> SEQ ID NO: 1  
 17 <211> LENGTH: 31  
 18 <212> TYPE: PRT  
 19 <213> ORGANISM: Artificial  
 21 <220> FEATURE:  
 22 <223> OTHER INFORMATION: Synthetic constructs  
 25 <220> FEATURE:  
 26 <221> NAME/KEY: MISC\_FEATURE  
 27 <222> LOCATION: (1)..(1)  
 28 <223> OTHER INFORMATION: Xaa= L-histidine, D-histidine, desamino-histidine,  
 29 2-amino-histidine, beta-hydroxy-  
 30 histidine, homohistidine, alpha-fluoromethyl-histidine, or alpha  
 31 methyl-histidine  
 33 <220> FEATURE:  
 34 <221> NAME/KEY: MISC\_FEATURE  
 35 <222> LOCATION: (2)..(2)  
 36 <223> OTHER INFORMATION: Xaa= Ala, Gly, Val, Leu, Ile, Ser, or Thr  
 38 <220> FEATURE:  
 39 <221> NAME/KEY: MISC\_FEATURE  
 40 <222> LOCATION: (6)..(6)  
 41 <223> OTHER INFORMATION: Xaa= Phe, Trp, or Tyr  
 43 <220> FEATURE:  
 44 <221> NAME/KEY: MISC\_FEATURE  
 45 <222> LOCATION: (10)..(10)  
 46 <223> OTHER INFORMATION: Xaa= Val, Trp, Ile, Leu, Phe, or Tyr  
 48 <220> FEATURE:  
 49 <221> NAME/KEY: MISC\_FEATURE  
 50 <222> LOCATION: (12)..(12)  
 51 <223> OTHER INFORMATION: Xaa= Ser, Trp, Tyr, Phe, Lys, Ile, Leu, Val  
 53 <220> FEATURE:  
 54 <221> NAME/KEY: MISC\_FEATURE  
 55 <222> LOCATION: (13)..(13)  
 56 <223> OTHER INFORMATION: Xaa= Tyr, Trp, or Phe  
 58 <220> FEATURE:  
 59 <221> NAME/KEY: MISC\_FEATURE  
 60 <222> LOCATION: (14)..(14)

CP3-2)

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61 <223> OTHER INFORMATION: Xaa= Leu, Phe, Tyr, or Trp
63 <220> FEATURE:
64 <221> NAME/KEY: MISC_FEATURE
65 <222> LOCATION: (16)..(16)
66 <223> OTHER INFORMATION: Xaa= Gly, Glu, Asp, Lys
68 <220> FEATURE:
69 <221> NAME/KEY: MISC_FEATURE
70 <222> LOCATION: (19)..(19)
71 <223> OTHER INFORMATION: Xaa= Ala, Val, Ile, or Leu
73 <220> FEATURE:
74 <221> NAME/KEY: MISC_FEATURE
75 <222> LOCATION: (21)..(21)
76 <223> OTHER INFORMATION: Xaa= Glu, Ile, or Ala
78 <220> FEATURE:
79 <221> NAME/KEY: MISC_FEATURE
80 <222> LOCATION: (24)..(24)
81 <223> OTHER INFORMATION: Xaa= Ala, or Glu
83 <220> FEATURE:
84 <221> NAME/KEY: MISC_FEATURE
85 <222> LOCATION: (27)..(27)
86 <223> OTHER INFORMATION: Xaa= Val, or Ile
88 <220> FEATURE:
89 <221> NAME/KEY: MISC_FEATURE
90 <222> LOCATION: (31)..(31)
91 <223> OTHER INFORMATION: Xaa= L-Cys, D-Cys, homocysteine, or penicillamine
93 <400> SEQUENCE: 1
W--> 95 Xaa Xaa Glu Gly Thr Xaa Thr Ser Asp Xaa Ser Xaa Xaa Xaa Glu Xaa
96 1 5 10 15
99 Gln Ala Xaa Lys Xaa Phe Ile Xaa Trp Leu Xaa Lys Gly Arg Xaa
100 20 25 30
103 <210> SEQ ID NO: 2
104 <211> LENGTH: 31
105 <212> TYPE: PRT
106 <213> ORGANISM: Artificial
108 <220> FEATURE:
109 <223> OTHER INFORMATION: Synthetic construct
112 <220> FEATURE:
113 <221> NAME/KEY: MISC_FEATURE
114 <222> LOCATION: (1)..(1)
115 <223> OTHER INFORMATION: Xaa= L-histidine, D-histidine, desamino-histidine,
116 2-amino-histidine, beta-hydroxy-
117 histidine, homohistidine, alpha-fluoromethyl-histidine, or
118 alpha-methyl-histidine
120 <220> FEATURE:
121 <221> NAME/KEY: MISC_FEATURE
122 <222> LOCATION: (2)..(2)
123 <223> OTHER INFORMATION: Xaa= Gly, Ala, Val, Leu, Ile, Ser or Thr
125 <220> FEATURE:
126 <221> NAME/KEY: MISC_FEATURE

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Input Set : A:\X15642.ST25.txt

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127 <222> LOCATION: (10)..(10)
128 <223> OTHER INFORMATION: Xaa = Val, Phe, Tyr, or Trp
130 <220> FEATURE:
131 <221> NAME/KEY: MISC_FEATURE
132 <222> LOCATION: (12)..(12)
133 <223> OTHER INFORMATION: Xaa = Ser, Tyr, Trp, Phe, Lys, Ile, Leu, or Val
135 <220> FEATURE:
136 <221> NAME/KEY: MISC_FEATURE
137 <222> LOCATION: (16)..(16)
138 <223> OTHER INFORMATION: Xaa = Gly, Glu, Asp, or Lys
140 <220> FEATURE:
141 <221> NAME/KEY: MISC_FEATURE
142 <222> LOCATION: (19)..(19)
143 <223> OTHER INFORMATION: Xaa = Ala, Val, Ile, or Leu
145 <220> FEATURE:
146 <221> NAME/KEY: MISC_FEATURE
147 <222> LOCATION: (27)..(27)
148 <223> OTHER INFORMATION: Xaa = Val or Ile
150 <220> FEATURE:
151 <221> NAME/KEY: MISC_FEATURE
152 <222> LOCATION: (31)..(31)
153 <223> OTHER INFORMATION: Xaa = L-Cys, D-Cys, homocysteine, or penicillamine
155 <400> SEQUENCE: 2
W--> 157 Xaa Xaa Glu Gly Thr Phe Thr Ser Asp Xaa Ser Xaa Tyr Leu Glu Xaa
158 1 5 10 15
161 Gln Ala Xaa Lys Glu Phe Ile Ala Trp Leu Xaa Lys Gly Arg Xaa
162 20 25 30
165 <210> SEQ ID NO: 3
166 <211> LENGTH: 42
167 <212> TYPE: PRT
168 <213> ORGANISM: Artificial
170 <220> FEATURE:
171 <223> OTHER INFORMATION: Synthetic construct
174 <220> FEATURE:
175 <221> NAME/KEY: MISC_FEATURE
176 <222> LOCATION: (1)..(1)
177 <223> OTHER INFORMATION: Xaa = L-histidine, D-histidine, desamino-histidine,
178 2-amino-histidine, beta-hydroxy-
179 histidine, homohistidine, alpha-fluoromethyl-histidine, or
180 alpha-methyl-histidine
182 <220> FEATURE:
183 <221> NAME/KEY: MISC_FEATURE
184 <222> LOCATION: (2)..(2)
185 <223> OTHER INFORMATION: Xaa = Ala, Gly, Val, Leu, Ile, Ser, or Thr
187 <220> FEATURE:
188 <221> NAME/KEY: MISC_FEATURE
189 <222> LOCATION: (6)..(6)
190 <223> OTHER INFORMATION: Xaa = Phe, Trp, or Tyr
192 <220> FEATURE:

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193 <221> NAME/KEY: MISC_FEATURE
194 <222> LOCATION: (10)..(10)
195 <223> OTHER INFORMATION: Xaa = Val, Trp, Ile, Leu, Phe, or Tyr
197 <220> FEATURE:
198 <221> NAME/KEY: MISC_FEATURE
199 <222> LOCATION: (12)..(12)
200 <223> OTHER INFORMATION: Xaa = Ser, Trp, Tyr, Phe, Lys, Ile, Leu, Val
202 <220> FEATURE:
203 <221> NAME/KEY: MISC_FEATURE
204 <222> LOCATION: (13)..(13)
205 <223> OTHER INFORMATION: Xaa = Tyr, Trp, or Phe
207 <220> FEATURE:
208 <221> NAME/KEY: MISC_FEATURE
209 <222> LOCATION: (14)..(14)
210 <223> OTHER INFORMATION: Xaa = Leu, Phe, Tyr, or Trp
212 <220> FEATURE:
213 <221> NAME/KEY: MISC_FEATURE
214 <222> LOCATION: (16)..(16)
215 <223> OTHER INFORMATION: Xaa = Gly, Glu, Asp, or Lys
217 <220> FEATURE:
218 <221> NAME/KEY: MISC_FEATURE
219 <222> LOCATION: (19)..(19)
220 <223> OTHER INFORMATION: Xaa = Ala, Val, Ile, or Leu
222 <220> FEATURE:
223 <221> NAME/KEY: MISC_FEATURE
224 <222> LOCATION: (21)..(21)
225 <223> OTHER INFORMATION: Xaa = Glu, Ile, or Ala
227 <220> FEATURE:
228 <221> NAME/KEY: MISC_FEATURE
229 <222> LOCATION: (24)..(24)
230 <223> OTHER INFORMATION: Xaa = Ala or Glu
232 <220> FEATURE:
233 <221> NAME/KEY: MISC_FEATURE
234 <222> LOCATION: (27)..(27)
235 <223> OTHER INFORMATION: Xaa = Val or Ile
237 <220> FEATURE:
238 <221> NAME/KEY: MISC_FEATURE
239 <222> LOCATION: (28)..(28)
240 <223> OTHER INFORMATION: Xaa = Lys, Asp, Arg, or Glu
242 <220> FEATURE:
243 <221> NAME/KEY: MISC_FEATURE
244 <222> LOCATION: (30)..(30)
245 <223> OTHER INFORMATION: Xaa = Gly, Pro, or Arg
247 <220> FEATURE:
248 <221> NAME/KEY: MISC_FEATURE
249 <222> LOCATION: (31)..(31)
250 <223> OTHER INFORMATION: Xaa = Gly, Pro, Ser, L-Cys, D-Cys, homocysteine, or
penicillamine
252 <220> FEATURE:
253 <221> NAME/KEY: MISC_FEATURE

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## RAW SEQUENCE LISTING

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TIME: 13:40:35

Input Set : A:\X15642.ST25.txt

Output Set: N:\CRF4\07062006\J516490B.raw

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254 <222> LOCATION: (32)..(32)
255 <223> OTHER INFORMATION: Xaa = Ser, Pro, His, L-Cys, D-Cys, homocysteine,
penicillamine,
257 <220> FEATURE:
258 <221> NAME/KEY: MOD_RES
259 <222> LOCATION: (32)..(32)
260 <223> OTHER INFORMATION: Amidation
262 <220> FEATURE:
263 <221> NAME/KEY: MISC_FEATURE
264 <222> LOCATION: (33)..(33)
265 <223> OTHER INFORMATION: Xaa = Ser, Arg, Thr, Trp, Lys, L-Cys, D-Cys, homocysteine,
266     penicillamine, or
267     is absent
269 <220> FEATURE:
270 <221> NAME/KEY: MOD_RES
271 <222> LOCATION: (33)..(33)
272 <223> OTHER INFORMATION: Amidation
274 <220> FEATURE:
275 <221> NAME/KEY: MISC_FEATURE
276 <222> LOCATION: (34)..(34)
277 <223> OTHER INFORMATION: Xaa = Ser, Gly, L-Cys, D-Cys, homocysteine, penicillamine,
or is
278     absent
280 <220> FEATURE:
281 <221> NAME/KEY: MOD_RES
282 <222> LOCATION: (34)..(34)
283 <223> OTHER INFORMATION: Amidation
285 <220> FEATURE:
286 <221> NAME/KEY: MISC_FEATURE
287 <222> LOCATION: (35)..(35)
288 <223> OTHER INFORMATION: Xaa = Ala, Asp, Arg, Glu, Lys, Gly, L-Cys, D-Cys,
homocysteine,
289     penicillamine,
290     or is absent
292 <220> FEATURE:
293 <221> NAME/KEY: MOD_RES
294 <222> LOCATION: (35)..(35)
295 <223> OTHER INFORMATION: Amidation
297 <220> FEATURE:
298 <221> NAME/KEY: MISC_FEATURE
299 <222> LOCATION: (36)..(36)
300 <223> OTHER INFORMATION: Xaa = Pro, Ala, L-Cys, D-Cys, homocysteine, penicillamine,
or is
301     absent
303 <220> FEATURE:
304 <221> NAME/KEY: MOD_RES
305 <222> LOCATION: (36)..(36)
306 <223> OTHER INFORMATION: Amidation
308 <220> FEATURE:
309 <221> NAME/KEY: MISC_FEATURE
310 <222> LOCATION: (37)..(37)
311 <223> OTHER INFORMATION: Xaa = Pro, Ala, L-Cys, D-Cys, homocysteine, penicillamine,
or is

```

312          absent

**RAW SEQUENCE LISTING ERROR SUMMARY**  
**PATENT APPLICATION: US/10/516,490B**

DATE: 07/06/2006  
 TIME: 13:40:36

Input Set : A:\X15642.ST25.txt  
 Output Set: N:\CRF4\07062006\J516490B.raw

**Please Note:**

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; Xaa Pos. 1,2,6,10,12,13,14,16,19,21,24,27,31  
 Seq#:2; Xaa Pos. 1,2,10,12,16,19,27,31  
 Seq#:3; Xaa Pos. 1,2,6,10,12,13,14,16,19,21,24,27,28,30,31,32,33,34,35,36  
 Seq#:3; Xaa Pos. 37,38,39,40,41,42  
 Seq#:4; Xaa Pos. 1,2,10,16,19,27,28,30,31,32,33,34,35,36,37,38,39,40,41,42  
 Seq#:5; Xaa Pos. 1,2,16,19,27,32,33,34,35,36,37,38,39,40,41,42  
 Seq#:6; Xaa Pos. 1,2,6,10,12,13,14,16,19,21,24,27,28,30,31,32,33,34,35,36  
 Seq#:6; Xaa Pos. 37,38,39,40,41,42,43,44,45  
 Seq#:7; Xaa Pos. 32,33,34,35,36,37,38,39,40,41,42,43,44,45  
 Seq#:8; Xaa Pos. 1,2,6,10,12,13,14,16,19,21,24,27  
 Seq#:9; Xaa Pos. 1,2,10,12,16,19,27  
 Seq#:10; Xaa Pos. 1,2,6,10,12,13,14,16,19,21,24,27,28,30,31,32,33,34,35,36  
 Seq#:10; Xaa Pos. 37,38,39,40,41,42  
 Seq#:11; Xaa Pos. 1,2,10,16,19,27,28,30,31,32,33,34,35,36,37,38,39,40,41,42  
 Seq#:12; Xaa Pos. 1,2,16,19,27,32,33,34,35,36,37,38,39,40,41,42  
 Seq#:13; Xaa Pos. 1,2,6,10,12,13,14,16,19,21,24,27,28,30,31,32,33,34,35,36  
 Seq#:13; Xaa Pos. 37,38,39,40,41,42,43,44,45  
 Seq#:14; Xaa Pos. 32,33,34,35,36,37,38,39,40,41,42,43,44,45  
 Seq#:15; Xaa Pos. 1,2,6,10,12,13,14,16,19,21,24,27,31

**Invalid <213> Response:**

Use of "Artificial" only as "<213> Organism" response is incomplete, per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22



**VERIFICATION SUMMARY**

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Input Set : A:\X15642.ST25.txt

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L:10 M:271 C: Current Filing Date differs, Replaced Current Filing Date  
L:95 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:0  
M:341 Repeated in SeqNo=1  
L:157 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:0  
M:341 Repeated in SeqNo=2  
L:379 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0  
M:341 Repeated in SeqNo=3  
L:521 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0  
M:341 Repeated in SeqNo=4  
L:638 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:0  
M:341 Repeated in SeqNo=5  
L:817 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:0  
M:341 Repeated in SeqNo=6  
L:924 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:16  
M:341 Repeated in SeqNo=7  
L:1006 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:0  
M:341 Repeated in SeqNo=8  
L:1063 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:0  
M:341 Repeated in SeqNo=9  
L:1215 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10 after pos.:0  
M:341 Repeated in SeqNo=10  
L:1341 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:0  
M:341 Repeated in SeqNo=11  
L:1446 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:0  
M:341 Repeated in SeqNo=12  
L:1616 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:0  
M:341 Repeated in SeqNo=13  
L:1713 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14 after pos.:16  
M:341 Repeated in SeqNo=14  
L:1800 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:0  
M:341 Repeated in SeqNo=15